AMENDMENTS TO THE CLAIMS:

Please amend claims 1, 12, 14, 15 and 17 and add claims 41-43 as follows. Please cancel claims 13, 16, 24, 25 and 29-40 without prejudice or disclaimer. This listing of claims replaces all prior versions, and listings of claims, in the application.

LISTING OF CLAIMS:

1. (Currently Amended) A multiplexed method of detecting ~~one or more~~ a plurality of target polypeptides in a sample, the method comprising:

a) contacting the sample with ~~at least one~~ genetic ~~package~~ packages that ~~displays~~ each display a polypeptide-binding component under conditions whereby the plurality of target polypeptides in the sample form complexes with displayed polypeptide-binding components specific therefor, wherein:

[[the]] each genetic package comprises a predetermined marker component that is indicative of its displayed polypeptide-binding component; and

the ~~polypeptide-binding~~ polypeptide-binding component specifically binds to at least one of the target polypeptides;

b) identifying complexes of the plurality of target polypeptides with the displayed polypeptide-binding components of the genetic packages;

[[b)]] c) optionally amplifying the genetic ~~package~~ packages that have formed complexes, resulting in [[an]] amplified genetic ~~package~~ packages, or amplifying the marker ~~component~~ components in the genetic ~~package~~ packages that have formed complexes; and

[[c)]] d) detecting the marker ~~component~~ components in the genetic packages that have formed complexes, wherein the presence of the marker ~~component~~ components indicates the presence of the ~~one or more~~ plurality of target polypeptides.

2. The method of claim 1, wherein the one or more polypeptides comprise one or more protein, biotinylated protein, isolated protein, recombinant protein, enzyme, enzyme substrate, cancer protein, or disease related protein.

3. The method of claim 1, wherein the one or more polypeptides in the sample or the at least one genetic package is bound to a solid support.

4. The method of claim 3, wherein the solid support comprises one or more of a microsphere or bead, a surface of a tube or plate or a filter membrane.

5. The method of claim 3, further comprising washing the solid support after the polypeptide binding component specifically binds at least one of the one or more polypeptides.

6. The method of claim 1, comprising concurrently detecting at least about 10 to about 10^9 polypeptides.

7. The method of claim 6, comprising concurrently detecting at least about 50 to about 10,000 polypeptides.

8. The method of claim 6, comprising concurrently detecting at least about 3 to about 500 polypeptides.

9. The method of claim 6, comprising concurrently detecting at least about 3 to about 100 polypeptides.

10. The method of claim 1, wherein the sample is a tissue sample, a blood sample, a cell lysate or a plurality of cultured cells.

11. The method of claim 1, wherein the genetic package comprises a bacteriophage, a baculovirus or a bacterium.

12. (Currently Amended) The method of claim 11, wherein the bacteriophage comprises T4 phage, M13 phage or [[λ]] lambda phage.

13. (Cancelled)

14. (Currently Amended) The method of claim [[13]] 1, wherein the plurality of bio-displayed polypeptide binding components comprises about 10^2 to about 10^{10} different polypeptide-binding components.

15. (Currently Amended) The method of claim [[13]] 1, wherein the plurality of bio-displayed polypeptide binding components comprises about 10^5 to about 10^{10} different polypeptide-binding components.

16. (Cancelled)

17. (Currently Amended) The method of claim [[16]] 1, wherein the ~~plurality of~~ marker components ~~comprises~~ comprise a plurality of related marker components that are (mutants or variants?) derived from the same gene.

18. The method of claim 1, wherein the polypeptide-binding component comprises one or more of an agent selected from among an antibody, an antibody fragment, a single chain antibody fragment, an enzyme, biotin, avidin, streptavidin, a ligand and a receptor.

19. The method of claim 18, wherein the antibody, the antibody fragment or the single chain antibody fragment comprises one or more antigen recognition regions.

20. The method of claim 1, wherein step (c) comprises detecting the marker component by a method selected from among mass spectrometry, NMR spectroscopy, hybridization, microarray detection, electrophoretic detection, surface plasmon resonance, electrochemical detection, fluorescent detection, chemiluminescent detection, colorimetric detection and electrochemiluminescent detection.

21. The method of claim 20, wherein mass spectrometry comprises matrix-assisted laser desorption/ionization (MALDI) time-of-flight (TOF) mass spectrometry.

22. The method of claim 1, further comprising determining an amount of the marker component.

23. The method of claim 22, comprising correlating the amount of the marker component to an amount of at least one of the one or more polypeptides in the sample.

24. (Cancelled)

25. (Cancelled)

26. The method of claim 1, wherein the genetic package comprises a surface and wherein the marker component comprises a nucleic acid, which nucleic acid encodes a polypeptide, which polypeptide is expressed on the surface of the genetic package.

27. (Amended) The method of claim 1, wherein the predetermined marker component comprises a nucleic acid fragment.

28. The method of claim 27, wherein amplifying the marker component comprises performing polymerase chain reaction, ligase chain reaction, or Qβ-replicase amplification of the nucleic acid fragment or a detectable portion thereof.

29-40. (Cancelled)

41. (New) The method of claim 1, wherein the genetic packages are amplified prior to detection of the markers.

42. (New) The method of claim 41, wherein amplifying the genetic packages comprises performing polymerase chain reaction, ligase chain reaction, or Qβ-replicase amplification of the nucleic acid fragment or a detectable portion thereof.

43. (New) The method of claim 17, wherein the gene is hemoglobin.